



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Arispe et al.

Docket No.: PF453P3

Application No.: 09/989,687

Confirmation No.: 9708

Filed: November 21, 2001

Art Unit: 1643

For: METH1 and METH2 Polynucleotides and
Polypeptides

Examiner: K. A. Canella

INFORMATION DISCLOSURE STATEMENT (IDS)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorney for Applicants hereby directs the Examiner's attention to references A-CP listed on the attached Form SB/08.

Copies of references A-CP were submitted by Applicants or cited by the Examiner in connection with U.S. Application No. 09/373,658, filed on August 13, 1999, to which the instant application claims priority under 35 U.S.C. § 120. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the file of U.S. Application No. 09/373,658 for copies of references A-CP.

Applicants wish to bring to the attention of the Examiner that SEQ ID NO:2 and the corresponding cDNA clone of this application are related to SEQ ID NOS:84,851 and 177,073 in copending U.S. Application No. 09/912,293 and SEQ ID NOS:35,520; 37,915; and 28,946 in copending U.S. Application No. 09/912,292. Further, Applicants wish to bring to the attention of the Examiner that SEQ ID NO:4 and the corresponding cDNA clone of this application are related to SEQ ID NOS:25,609 and 99,884 in copending U.S. Application No. 09/912,293 and SEQ ID NO:23,336 in copending U.S. Application No. 09/912,292. A legible copy of those portions of U.S. Application Nos. 09/912,293 and 09/912,292 which caused them to be listed on

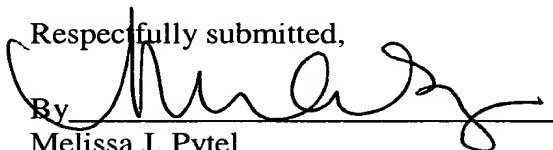
the attached Form SB/08 as references CF and CG were previously submitted in connection with U.S. Application No. 09/373,658.

Identification of the listed references is not to be construed as an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants do not waive any rights to take appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

The listed references are presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 C.F.R. § 1.104(a) concerning the Examiner's duty to consider and use any such information. Applicants respectfully request that the Examiner make the listed references of record in the file history of the application, and consider the information contained therein during the prosecution of this application.

Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed before the mailing of a first Office Action after the filing of a Request for Continued Examination. Accordingly, no fee is believed due. However, should the Patent Office determine otherwise, please charge such fee to our Deposit Account No. 08-3425.

Dated: December 6, 2005

Respectfully submitted,

By
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MMW/MJP/ba



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Substitute for form 1449A/B/PTO				Complete if Known	
				Application Number	09/989,687-Conf. #9708
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Filing Date	November 21, 2001
				First Named Inventor	Luisa Iruela Arispe
				Art Unit	1643
				Examiner Name	K. A. Canella
				Attorney Docket Number	PF453P3
Sheet	1	of	5		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	A*	US-5,194,596	03-16-1993	Tischer et al.	
	B*	US-5,350,836	09-27-1994	Kopchick et al.	
	C*	US-5,837,680	11-17-1998	Moses et al.	
	D*	US-6,416,974	07-09-2002	Holtzman et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	E	EP-0 874 050	10-28-1998	SmithKline Beecham Corp.		
	F	WO-98/55643	12-10-1998	Kureha Chemical Industry Co., Ltd.		
	G	WO-99/07850	02-18-1999	Millennium Biotherapeutics, Inc.		
	H	EP-1 004 674-A1	05-31-2000	Kureha Chemical Industry Co., Ltd.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	I	ADAMS, J.C., "Molecules in Focus: Thrombospondin-1," <i>Int. J. Biochem. Cell Biol.</i> 29:861-865, Elsevier Science, Ltd. (June 1997).	
	J	ASCH, A.S., et al., "Analysis of CD36 Binding Domains: Ligand Specificity Controlled by Dephosphorylation of an Ectodomain," <i>Science</i> 262:1436-1440, American Association for the Advancement of Science (1993).	
	K	BJAMASON, J.B., and Fox, J.W., "Snake Venom Metalloendopeptidases: Reprolysins," <i>Meth. Enzymol.</i> 248:345-369, Academic Press, Inc. (1995).	
	L	BORNSTEIN, P., "Thrombospondins: structure and regulation of expression," <i>FASEB J.</i> 6:3290-3299, Federation of American Societies for Experimental Biology (1992).	
	M	CATIMEL, B., et al., "Human platelet glycoprotein IIb binds to thrombospondin fragments bearing the C-terminal region, and/or the type I repeats (CSVTCG motif), but not to the N-terminal heparin-binding region," <i>Biochem. J.</i> 284:231-236, The Biochemical Society (1992).	
	N	COLIGE, A., et al., "cDNA cloning and expression of bovine procollagen I N-proteinase: A new member of the superfamily of zinc-metalloproteinases with binding sites for cells and other matrix components," <i>Proc. Natl. Acad. Sci. USA</i> 94:2374-2379, National Academy of Sciences of the USA (March 1997).	

Examiner Signature		Date Considered	
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				Art Unit	1643
				Examiner Name	K. A. Canella
Sheet	2	of	5	Attorney Docket Number	PF453P3

O	DAMERON, K.M., <i>et al.</i> , "Control of Angiogenesis in Fibroblasts by p53 Regulation of Thrombospondin-1," <i>Science</i> 265:1582-1584, American Association for the Advancement of Science (1994).
P	DAWSON, D.W., <i>et al.</i> , "CD36 Mediates the In Vitro Inhibitory Effects of Thrombospondin-1 on Endothelial Cells," <i>J. Cell Biol.</i> 138:707-717, The Rockefeller University Press (August 1997).
Q	GUO, N.-H., <i>et al.</i> , "Heparin-binding Peptides from the Type I Repeats of Thrombospondin," <i>J. Biol. Chem.</i> 267:19349-19355, American Society for Biochemistry and Molecular Biology (1992).
R	GUO, N.-H., <i>et al.</i> , "Antiproliferative and antitumor activities of D-reverse peptides derived from the second type-1 repeat of thrombospondin-1," <i>J. Peptide Res.</i> 50:210-221, Munksgaard (September 1997).
S	IRUELA-ARISPE, M.L., <i>et al.</i> , "Differential Expression of Thrombospondin 1, 2, and 3 During Murine Development," <i>Develop. Dynamics</i> 197:40-56, Wiley-Liss, Inc. (1993).
T	IRUELA-ARISPE, M.L., and Dvorak, H.F., "Angiogenesis: a Dynamic Balance of Stimulators and Inhibitors," <i>Thrombosis & Haemostasis</i> 78:672-677, F.K. Schattauer Verlagsgesellschaft mbH (July 1997).
U	KUNO, K., <i>et al.</i> , "Molecular Cloning of a Gene Encoding a New Type of Metalloproteinase-disintegrin Family Protein with Thrombospondin Motifs as an Inflammation Associated Gene," <i>J. Biol. Chem.</i> 272:556-562, American Society for Biochemistry and Molecular Biology (January 1997).
V	KYRIAKIDES, T.R., <i>et al.</i> , "Mice That Lack Thrombospondin 2 Display Connective Tissue Abnormalities That Are Associated with Disordered Collagen Fibrillogenesis, an Increased Vascular Density, and a Bleeding Diathesis," <i>J. Cell Biol.</i> 140:419-430, The Rockefeller University Press (January 1998).
W	LAWLER, J., <i>et al.</i> , "Thrombospondin-1 Is Required for Normal Murine Pulmonary Homeostasis and Its Absence Causes Pneumonia," <i>J. Clin. Invest.</i> 101:982-992, The Rockefeller University Press (March 1998).
X	NISHIMORI, H., <i>et al.</i> , "A novel brain-specific p53-target gene, BA11, containing thrombospondin type 1 repeats inhibits experimental angiogenesis," <i>Oncogene</i> 15:2145-2150, Stockton Press (October 1997).
Y	PFAFF, M., <i>et al.</i> , "Comparison of Disintegrins with Limited Variation in the RGD Loop in Their Binding to Purified Integrins $\alpha 11\beta 3$, $\alpha V\beta 3$ and $\alpha 5\beta 1$ and in Cell Adhesion Inhibition," <i>Cell Adhesion & Comm.</i> 2:491-501, Harwood Academic Publishers GmbH (1994).
Z	RAWLINGS, N.D., and Barrett, A.J., "Evolutionary Families of Metallopeptidases," <i>Meth. Enzymol.</i> 248:183-229, Academic Press, Inc. (1995).
AA	TOLSMA, S.S., <i>et al.</i> , "Peptides Derived from Two Separate Domains of the Matrix Protein Thrombospondin-1 Have Anti-Angiogenic Activity," <i>J. Cell Biol.</i> 122:497-511, The Rockefeller University Press (1993).
AB	USAMI, Y., <i>et al.</i> , "A 28 kDa-protein with disintegrin-like structure (jararhagin-C) purified from <i>Bothrops jararaca</i> venom inhibits collagen- and ADP-induced platelet aggregation," <i>Biochem. & Biophys. Res. Comm.</i> 201:331-339, Academic Press, Inc. (1994).
AC	VOGEL, T., <i>et al.</i> , "Modulation of Endothelial Cell Proliferation, Adhesion, and Motility by Recombinant Heparin-Binding Domain and Synthetic Peptides From the Type I Repeats of Thrombospondin," <i>J. Cell. Biochem.</i> 53:74-84, Wiley-Liss, Inc. (1993).
AD	WOLFSBERG, T.G., and White, J.M., "Review: ADAMs in Fertilization and Development," <i>Develop. Biol.</i> 180:389-401, Academic Press, Inc. (December 1996).

Examiner Signature		Date Considered	
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				First Named Inventor	Luisa Iruela Arispe
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				Examiner Name	K. A. Canella
Sheet	3	of	5	Attorney Docket Number	PF453P3

AE	GenBank Accession No. D67076, Kuno, K. (February 1999).	
AF	GenBank Accession No. AB001735, Kuno, K. (January 1998).	
AG	GenBank Accession No. X14787, Hennessy, S.W. <i>et al.</i> (1995).	
AH	GenBank Accession No. U64857, Wilson, R. <i>et al.</i> (November 1998).	
AI	GenBank Accession No. X04665, Lawler, J. and R.O. Hynes (1995).	
AJ	GenBank Accession No. M64866, Bornstein, P. <i>et al.</i> (1993).	
AK	GenBank Accession No. L07803, Laherty, C.D. <i>et al.</i> (1994).	
AL	GenBank Accession No. U08006, Michelotti, G.A. <i>et al.</i> (1995).	
AM	GenBank Accession No. M16974, Rao, A.G. <i>et al.</i> (1994).	
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AQ	GenBank Accession No. L05390, Blanco, G. <i>et al.</i> (1993).	
AR	GenBank Accession No. Z69361, Gajadsty, S. <i>et al.</i> (November 1998).	
AS	GenBank Accession No. X99599, Borghese, R. <i>et al.</i> (February 1998).	
AT	GenBank Accession No. AF018073, Schneider, K.H. <i>et al.</i> (October 1997).	
AU	GenBank Accession No. L23760, Lin, Q. <i>et al.</i> (1994).	
AV	GenBank Accession No. Z46970, Wiese, M. (1995).	
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AY	GenBank Accession No. Z22279, Zabarovsky, E. <i>et al.</i> (1994).	
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BA	GenBank Accession No. AB005287, Ueno, A. <i>et al.</i> (March 1998).	
BB	GenBank Accession No. X87619, Zafar, R.S. (1995).	
BC	GenBank Accession No. M87276, Laherty, C.D. <i>et al.</i> (1994).	
BD	GenBank Accession No. M62458, Lawler, J. <i>et al.</i> (1994).	
BE	GenBank Accession No. AB002364, Nagase, T. <i>et al.</i> (February 1999).	
BF	GenBank Accession No. AB005297, Nakamura, Y. <i>et al.</i> (November 1997).	
BG	GenBank Accession No. X69161, Akam, M.E. <i>et al.</i> (1995).	
BH	GenBank Accession No. X16619, Debuchy, R. <i>et al.</i> (February 1999).	
BI	GenBank Accession No. I36448, Goodearl, A. <i>et al.</i> (March 1997).	
BJ	GenBank Accession No. L12260, Marchionni, M.A. <i>et al.</i> (September 1997).	
BK	GenBank Accession No. I36352, Goodearl, A. <i>et al.</i> (March 1997).	
BL	GenBank Accession No. X15898, Liberator, P.A. <i>et al.</i> (1995).	
BM	GenBank Accession No. I07789, Liberator, P.A. <i>et al.</i> (1994).	
BN	GenBank Accession No. I08144, Altenburger, W. <i>et al.</i> (1994).	
BO	GenBank Accession No. U31814, Yang, W.M. <i>et al.</i> (November 1996).	
BP	GenBank Accession No. AF001444, Mundlos, S. <i>et al.</i> (August 1997).	
BQ	English language translation of WO 98/55643 (Reference F).	
BR	BURGESS <i>et al.</i> , "Possible Dissociation of the Heparin-binding and Mitogenic Activities of Heparin-binding Growth Factor-1 from Its Receptor-binding Activities by Site-directed Mutagenesis of a Single Lysine Residue," <i>J. Cell. Biol.</i> , vol. 111 (1990).	
BS	LAZAR <i>et al.</i> , "Transforming Growth Factor Alpha: Mutation of Aspartic Acid 47 and Leuine 48 Results in Different Biological Activities," <i>Molec. and Cell. Biol.</i> , 8:1247-1252 (1988).	

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Sheet	4	of	5	Attorney Docket Number	PF453P3

BT	ADAMS, M.D., <i>et al.</i> , "3,400 expressed sequence tags identify diversity of transcripts from human brain," <i>Nat. Genet.</i> 4:256-267, Nature Publishing Company (1993).	
BU	BOWIE, J.U., <i>et al.</i> , "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions," <i>Science</i> 247:1306-1310, American Association for the Advancement of Science (1990).	
BV	HSU, S.C., <i>et al.</i> , "Inhibition of Angiogenesis in Human Glioblastomas by Chromosome by Chromosome 10 Induction of Thrombospondin-1," <i>Cancer Res.</i> 56:5684-5691, American Association of Cancer Research (December 1996).	
BW	KUNO, K., <i>et al.</i> , "The Exon/Intron Organization and Chromosomal Mapping of the Mouse ADAMTS-1 Gene Encoding an ADAM Family Protein with TSP Motifs," <i>Genomics</i> 46:466-471, Academic Press, Inc. (December 1997).	
BX	KUNO, K., "Mouse mRNA for secretory protein containing thrombospondin motifs, complete cds," Database EMBL 'Online!', Database Accession No. D67076 (February 1997).	
BY	LAWLER, J., <i>et al.</i> , "Characterization of the murine thrombospondin gene," <i>Genomics</i> 11:587-600, Academic Press, Inc. (1991).	
BZ	NCI-CGAP, "National Cancer Institute, Cancer Genome Anatomy Project (CGAP), Tumor Gene Index http://www.ncbi.nlm.nih.gov/ncicgap ," Database EMBL 'Online!', Database Accession No. AA635657 (October 1997).	
CA	SKOLNICK, J., and Fetrow, J.S., "From genes to protein structure and function: novel applications of computational approaches in the genomic era," <i>Trends Biotechnol.</i> 18:34-39, Elsevier Science, Ltd. (January 2000).	
CB	VAZQUEZ, F., <i>et al.</i> , "METH-1, a Human Ortholog of ADAMTS-1, and METH-2 Are Members of a New Family of Proteins with Angio-inhibitory Activity," <i>J.Biol. Chem.</i> 274:23349-23357, American Society for Biochemistry and Molecular Biology, Inc. (August 1999).	
CC	"Molecular Biology/ Reagent Systems," 1994-1995 Promega Catalog, p. 167, Promega (1994-1995).	
CD	Human Genome Sciences, Corp. EST #1039649.	
CE	Co-pending U.S. Application No. 10/115,286, Jonak <i>et al.</i> , filed April 4, 2002.	
CF	Pending Non-Provisional U.S. Patent Application No. 09/912,293, Rosen <i>et al.</i> , NOT PUBLISHED: pages 1-75 (pages 1 + 2 partially redacted); portion of Table 2; and SEQ ID NOS:177073, 84851, 25609, and 99884.	
CG	Pending Non-Provisional U.S. Patent Application No. 09/912,292, Rosen <i>et al.</i> , NOT PUBLISHED: pages 1-75 (pages 1 + 2 partially redacted); portion of Table 2; and SEQ ID NOS:37915, 35520, 28946, and 23336.	
CH	Supplementary Partial European Search Report for European Application No. EP 99 90 4190 completed July 8, 2002.	
CI	GOOD <i>et al.</i> "A tumor suppressor-dependent inhibitor of angiogenesis is immunologically and functionally indistinguishable from a fragment of thrombospondin", <i>PNAS USA</i> , 487:6624-6628 (1990).	
CJ	DAMERON <i>et al.</i> "Control of angiogenesis in fibroblasts by p53 regulation of thrombospondin-1", <i>Science</i> , 265:1582-1584 (1994).	
CK	Trikha <i>et al.</i> , <i>Cancer Research</i> , 54:4993-4998 (1994) (Abstract only).	
CL	60/058,108	
CM	60/054,966	

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	CN	GenBank Accession No. R19976, HILLIER et al., "yg38e05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34684 5', mRNA sequence" (Apr. 17, 1995).	
	CO	GenBank Accession No. W47316, HILLIER et al., "zc40g02.r1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:324818 5', mRNA sequence" (Oct. 11, 1996).	
	CP	GenBank Accession No. R13547, HILLIER et al., "yf59g08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:26419 5', mRNA sequence (Apr. 12, 1995).	

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